

A new species of *Sinezona* (Gastropoda, Scissurellidae) from the Caribbean Sea

Una nueva especie de *Sinezona* (Gastropoda, Scissurellidae) del Mar Caribe

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ABSTRACT

A new species of the genus *Sinezona* from the Caribbean is described and compared with the previously known species from the Atlantic Ocean.

RESUMEN

Se describe una nueva especie del género *Sinezona* del Caribe y se compara con las especies previamente conocidas del Océano Atlántico.

KEY WORDS: *Sinezona*, Scissurellidae, Gastropoda, Caribbean Sea.

PALABRAS CLAVE: *Sinezona*, Scissurellidae, Gastropoda, Mar Caribe.

INTRODUCTION

The Caribbean species of Scissurellidae have been mentioned in several general works (WARMKE AND ABBOTT, 1969; ABBOTT, 1974). Some Brazilian species were described by Montouchet (1972) and SEM photographs of Caribbean species have appeared in PALAZZI (1983), DE JONG AND COOMANS (1988) and LEAL (1991). Rolán and Luque (1994) described a new species from the Caribbean which had been confused until then with the European-Eastern Atlantic *Sinezona crosseii* (Folin, 1869) (= *S. cingulata* auct., non O. G. Costa, 1861). The species

from the Eastern Atlantic and Macaronesian islands were studied in BURNAY AND ROLÁN (1990).

From the material found in sediments dredged between 10 to 60 m in Bahamas Islands from 1982 to 1992 and studied by Colin Redfern, some shells of a scissurellid did not correspond with the previously known species. Some specimens of the same species were collected in Cuba in 1984 by the "Expedición Hispano-Cubana" to the archipelago of Los Canarreos. This species is described in the present work as new to science.

RESULTS

Family SCISSURELLIDAE Gray, 1847

Genus *Sinezona* Finlay, 1927

Sinezona redferni spec. nov. (Figs. 1-4)

Type material: Holotype (Fig. 1) of 0.65 mm, from Chub Rocks, 21 m, deposited in the American Museum of Natural History (AMNH), New York, n° 226480. One paratype in the following

collections: The Natural History Museum (BMNH) of London, Museo Nacional de Ciencias Naturales (MNCN) of Madrid nº 15. 05/17218, Zoologisch Museum of Amsterdam (ZMA), Museum National d'Histoire Naturelle of Paris (MNHN), and the author (CER); 11 in the collection of Colin Redfern of Boca Raton, USA. All from Bahamas Islands: Abaco Island (type locality), between 10 m and 56 m.

Other material examined: Cuba: Cayo Cantiles: 4 shells, in sediments from 15 m.

Etymology: Named after Colin Redfern, who collected most of the material and suspected its differences with the previously known Caribbean species.

Description: Shell (Figs. 1-3) 0.5 - 0.7 mm of maximum width, turbiniform, somewhat depressed, with low spire and rounded whorls. Protoconch (Fig. 4) of only one spiral whorl, nucleus without any prominent sculpture but in the first half whorl appears an irregular weft. The last half of the whorl presents 12 fine axial ribs which, from the suture, reaches only the middle of the whorl, being the rest almost smooth. Between these ribs there are many minute tubercles. The protoconch finishes in the first axial rib of the teleoconch, more prominent than those of the protoconch. The teleoconch has 1 1/5 rounded whorls and the selenizone begins a little before the first whorl is completed. It runs along the last half whorl and is opened in its final quarter part. The teleoconch (Figs. 1 and 4) is sculptured with fine curved axial ribs which are present in a total number of 23-26. These ribs disappear a little before going into the wide umbilicus (Fig. 2). The whole shell surface is covered with very small and irregular lamellas. Some spiral striae are present between the selenizone and the base, (Fig. 2, 3) only being evident towards the end of the spire. Colour whitish, with a cream periostracum.

Remarks: *S. redfernii* spec. nov. differs from the other species of *Sinezona* from the Atlantic: *S. crosseii* (Folin, 1869) from the Mediterranean, West Africa and Macaronesia and *S. confusa* Rolán and Luque, 1995 from the Caribbean, are more ovoid, the adult specimens have the slit

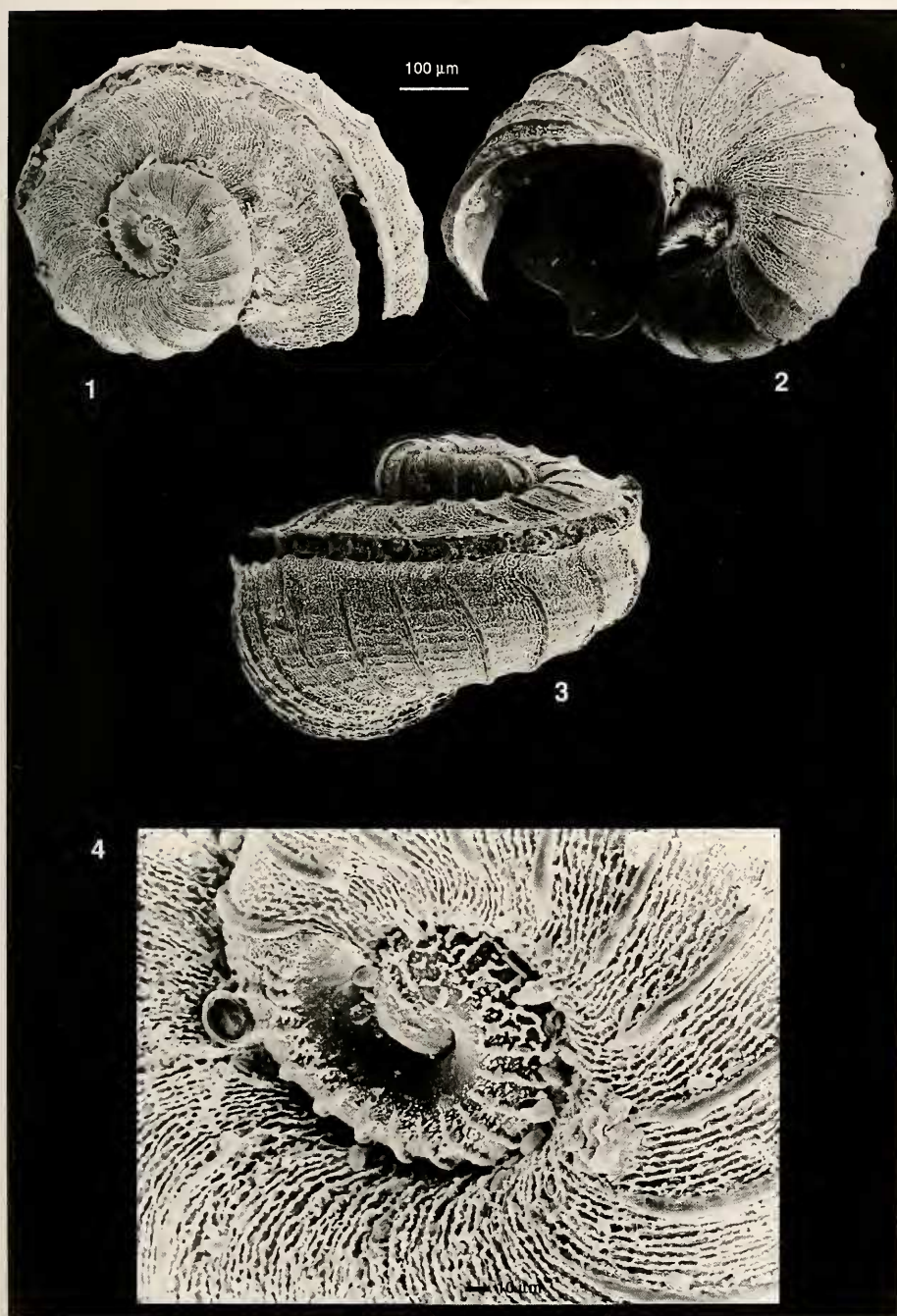
closed at its end, the spiral sculpture is very evident in the whole shell surface, the umbilicus is closed and the protoconch has wider and more numerous ribs. *S. semicostata* Burnay and Rolán, 1990, described from the Cape Verde Islands, and also present in the Canary Islands and Madeira, lacks axial ribs in the last half whorl of teleoconch and the ribs of the protoconch are stronger and more numerous. *S. lobini* Burnay and Rolán, 1990 is the closest species. Both species seem very similar, but the selenizone of the *S. lobini* begins just at the end of the first whorl of the teleoconch, while in *S. redfernii* it begins a little before. *S. lobini* has about 14 stronger axial ribs in the first whorl of the teleoconch, while *S. redfernii* has 16 and they are narrower. *S. lobini* lacks spiral striae at the base. Finally, *S. redfernii* has 12 narrower ribs in the protoconch instead of the 14 wider in *S. lobini*; these ribs are near the nucleus in this species instead of the irregular sculpture of *S. redfernii*.

From the coast of Brazil, *Scissurella alexandrei* Montouchet, 1972 is larger and more globose. *Scissurella morretesi* Montouchet, 1972 has a more elevated first spiral whorl and a shorter selenizone. *Scissurella electilis* Montouchet, 1972 has only axial sculpture and a very narrow umbilicus. MONTOUCHET (1972) compares this species with *Scissurella costata* Orbigny, 1823, as a very related species. *S. costata* is very different from *Sinezona redfernii* by its form, the flat spire, the peripheral angulation and the very fine axial ribs.

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Figures 1-4. *Sinezona redferni* spec. nov. 1: Holotype (AMNH), Abaco, Bahamas; 2: Paratype (MNCN), Abaco, Bahamas; 3: Paratype (CER), Abaco, Bahamas; 4: Protoconch of the holotype. Figuras 1-4. *Sinezona redferni* spec. nov. 1: Holotipo (AMNH), Abaco, Bahamas; 2: Paratipo (MNCN), Abaco, Bahamas; 3: Paratipo (CER), Abaco, Bahamas; 4: Protoconcha del holotipo.

BIBLIOGRAPHY

- ABBOTT, R. T., 1974. *American seashells*. (2nd Ed.). Van Nostrand Reinhold Co. New York. 663 pp., 24 pls.
- BURNAY, L. P. AND ROLÁN, E., 1990. The family Scissurellidae in the Cape Verde Islands (Prosobranchia: Archaeogastropoda). *Archiv für Molluskenkunde*, 120 (1/3): 31-45.
- DE JONG, K. M. AND COOMANS, H. E., 1988. *Marine gastropods from Curaçao, Aruba and Bonaire*. E. J. Brill. Leiden. 261 pp. 47 pls.
- LEAL, J. H., 1991. *Marine Prosobranch Gastropods from oceanic islands off Brazil*. Backhuys. Oegstgeest. 418 pp. 25 pls.
- MONTOUCHET, P. CH., 1972. Three new species of Scissurellidae (Gastropoda, Prosobranchia) from the coast of Brazil. *Boletim Instituto Oceanográfico, São Paulo*, 21: 1-13.
- PALAZZI, S., 1983. Su alcuni molluschi marini di isola de Pinos (Cuba). *Notiziario CISMA*, 5 (1/2): 39-47.
- ROLÁN, E. AND LUGUE, A. A., 1994. Una nueva especie de Sinezona (Gastropoda, Scissurellidae) del Caribe. *Iberus*, 12 (1): 1-5.
- WARMKE, G. L. AND ABBOTT, R. T., 1969. *Caribbean seashells*. Livingston Publishing Co. Wynnewood, Pennsylvania. 348 pp., 43 pls.

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